

WE CLAIM:

1. A method of performing configuration change management in a network management context, the method comprising steps of:
 - a. validating a managed entity viewing script template submitted for execution
5 on a target managed entity;
 - b. conditionally deriving a managed entity viewing script from the managed entity viewing script template based on positive validation; and
 - c. submitting the derived managed entity viewing script for execution on the target managed entity.
- 10 2. The method claimed in claim 1, further comprising a subsequent step of retrieving managed entity viewing script output including one of configuration information, diagnostic information, statistic information, and error information from the target managed entity.
3. The method claimed in claim 2, further comprising a step of time stamping
15 retrieved managed entity viewing script output.
4. The method claimed in claim 2, further comprising a step of storing retrieved managed entity viewing script output in a Network Management System (NMS) repository.
5. The method claimed in claim 4, wherein storing retrieved managed entity viewing
20 script output, the method further comprises steps of:
 - a. appending the retrieved managed entity viewing script output to a log file;
and
 - b. optionally truncating the log file when a maximum log file size is exceeded.
6. The method claimed in claim 2, further comprising a step of comparing two
25 retrieved managed entity script outputs.
7. The method claimed in claim 1, further comprising previous steps of:

a. selecting the managed entity viewing script template form a plurality of managed entity viewing script templates; and

b. selecting the target managed entity from a plurality of managed entities.

5 8. The method claimed in claim 7, wherein selecting the managed entity viewing script template, the method further comprises a step of subjecting the plurality of managed entity viewing scrip templates to a managed entity viewing script template filter.

10 9. The method claimed in claim 7, wherein selecting the target managed entity, the method further comprises a step of subjecting the plurality of managed entities to a managed entity filter.

10. The method claimed in claim 1, further comprising prior steps of:

a. receiving a trap;

b. determining a target managed entity associated with the received trap; and

15 c. determining a managed entity viewing template to be submitted for execution on the determine target managed entity based on the received trap.

11. The method claimed in claim 1, further comprising steps of:

a. specifying a sequence of Command Line Interface (CLI) commands in creating the managed entity viewing script template; and

20 b. ascribing an identifier to the managed entity viewing script template specifying a managed entity make, a managed entity type, and a managed entity CLI command set version.

12. The method claimed in claim 11, wherein specifying the sequence of CLI commands, the method further comprises a step of specifying at least one login CLI command.

13. The method claimed in claim 1, wherein submitting the managed entity viewing script for execution on the target managed entity, the method further comprises a step of scheduling the managed entity viewing script for execution.
- 5 14. The method claimed in claim 1, wherein submitting a plurality of managed entity viewing scripts for execution on the target managed entity, the method further comprises a step of sequencing the plurality of managed entity viewing scripts preventing concurrent execution thereof on the target managed entity.
- 10 15. The method claimed in claim 1, the managed entity viewing script template is parameterized, wherein deriving the managed entity viewing script from the managed entity viewing script template, the method further comprising step of:
- a. retrieving target managed entity parameter values from a Network Management System (NMS) repository; and
 - b. populating managed entity viewing script template parameters with the retrieved managed entity parameter values.
- 15 16. The method claimed in claim 15, further comprising steps of:
- a. determining a parameter for which a corresponding target managed entity parameter value is not available in the NMS repository; and
 - b. prompting operations management personnel to input a corresponding parameter value.
- 20 17. The method claimed in claim 16, wherein prompting operations management personnel to input the parameter value, the method further comprises a step of presenting operations management personnel with a default parameter value.

18. The method claimed in claim 1, wherein validating the managed entity viewing script template for execution on the target managed entity, the method further comprises a step of: asserting positive validation, when aside from equipment make and type validation, the CLI command set version of the managed entity viewing script template is lower than the CLI command set version reported by a Network Management System (NMS) repository in respect of the target managed entity.

19. A managed entity viewing framework comprising:

a. managed entity viewing script template selection means for selecting at least one managed entity viewing script template for execution;

b. managed entity selection means for selecting at least one target managed entity;

c. managed entity viewing script template submission means for submitting the at least one selected managed entity script template for execution on the at least one selected target managed entity;

d. validation means for validating the submission of the at least one managed entity viewing script template for execution on the at least one selected target managed entity; and

e. a managed entity viewing framework process executing in a network management context for obtaining target managed entity information from a Network Management System (NMS) repository in support of populating the at least one managed entity viewing script template in obtaining a corresponding at least one managed entity viewing script; and

f. managed entity viewing script submission means for submitting the at least one managed entity script for execution on the at least one selected target managed entity.

- 5 20. The managed entity viewing framework claimed in claim 19, wherein the managed entity viewing script submission means further comprises a script sequencer for sequencing a plurality of managed entity viewing scripts submitted for execution on a target managed entity in preventing concurrent managed entity viewing script execution thereon.
21. The managed entity viewing framework claimed in claim 20, wherein the script sequencer further comprises a queue.
- 10 22. The managed entity viewing framework claimed in claim 19, wherein the managed entity viewing script submission means further comprises a script scheduler for pacing the submission for execution of a plurality of managed entity viewing scripts.
23. The managed entity viewing framework claimed in claim 22, wherein the script scheduler further comprises a queue.
- 15 24. The managed entity viewing framework claimed in claim 19, further comprising autonomous means for submitting a managed entity viewing template for execution upon receiving a trap.
25. The managed entity viewing framework claimed in claim 19, further comprising a human-machine interface for creating a managed entity viewing script template.
- 20 26. The managed entity viewing framework claimed in claim 19, further comprising a human-machine interface for manipulating at least one managed entity viewing script template.
27. The managed entity viewing framework claimed in claim 19, further comprising a human-machine interface displaying results of the execution of a managed entity viewing script on a target managed entity.
- 25 28. The managed entity viewing framework claimed in claim 19, further comprising means for authenticating operations management personnel for submitting the at least one managed entity viewing script for execution on the at least one target managed entity.

29. The managed entity viewing framework claimed in claim 19, further comprising automated means for logging on the target managed entity in submitting the managed entity viewing script for execution thereon.

5 30. The managed entity viewing framework claimed in claim 19, wherein the at least one managed entity viewing script template includes one of: a show VRF script template, show Label Switched Path script template, and a show interface script template.